

teen days after his admission, is obnoxious to the same doubts, in consequence of its protracted duration. And it is easier to believe that all these individuals had undergone a spurious form of vaccine than that vaccine should have failed to protect them.

Dr. Bond's case is considered by him as extremely questionable. Dr. Fox's case may be admitted as an example of death from small-pox subsequent to vaccination. The known character of the eminent and conscientiously cautious individual who had vaccinated the unfortunate gentleman, forbids us to doubt that he considered his vaccination perfectly satisfactory, or that he could be mistaken in its character.

Dr. Klapp's case is stated by him to be doubtful. Of Dr. Moore's fatal cases only two occurred in 1827-8. The woman when taken sick was suffering under a cold, and was labouring under an attack of pneumonia typhodes when the Dr. saw her on the third day of the eruption; she died on the fifth day. The second woman died on the sixteenth day, of a secondary fever, which came on after the pock turned.

There will be no reason to charge the committee with want of candour if they reject both these examples of death from small-pox after reputed vaccination. The pneumonia typhodes has no necessary connexion with variola, and the woman's death ought rather to be charged on that terrific complication, than on an implied impotency of the vaccine. The second case from its long duration and other phenomena seems to have been an unmodified small-pox. No fatal case of modified small-pox has been adduced. In neither case is there furnished an authentic record of the vaccination—which ought therefore to be deemed hypothetical. Lastly, Dr. Wilbank's case, occurring before the constitution had been modified by the maturity of the vaccine vesicle, proves nothing against its value and efficacy.

Thus we may, without the least want of candour, come to the conclusion that only one death from small-pox after vaccination has occurred in Philadelphia during the year 1827, among eighty thousand vaccinated persons and during the prevalence of a most malignant and mortal small-pox, while several individuals have lost their lives from small-pox after they had already gone once through the disease. It appears then clearly that vaccination ought to lose nothing of the public confidence; and, as a protection from the fatal effects of genuine small-pox, it may safely be asserted that it is in every sense to be preferred to inoculation.

Let the public be well informed with regard to the real degree of efficacy of the vaccine virus—let them be no longer told, it will positively shield them from the assault of small-pox in any shape and every instance. They will confide in it if we point them to the physicians who rely on it for the safety of their wives and children, and defended by “the egis of Jenner,” walk unharmed themselves amidst the arrows of pestilence and death.

EDWARD JENNER COXE,
D. FRANCIS CONDIE,
CH. D. MEIGS.

The committee have received several communications, in reply to their queries, since the above report was finished; and they regret that the lateness of the period at which they arrived prevented their incorporation into the body of the report. The writers are Dr. W. Carll Brewster; Dr. J. Green; Dr. Joseph Hartshorne; Dr. B. S. Janney; Dr. Joseph G. Nancrede, vaccine physician for the city; Dr. O. H. Taylor; Dr. H. Walton; and Dr. J. Uhler, Jr.

We can only briefly state that they support by their communications the whole mass of the evidence given above. Their experience, (in some very considerable,) has not, in the least degree, tended to destroy their confidence in vaccination; whose preservative efficacy has been found sufficient, by a part of these gentlemen, to defend them from the contagion of small-pox, though repeatedly exposed to it in their professional intercourse with the sick. Their letters are submitted, with the rest of the documents, to the disposal of the society.

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ART. I. *Cases of Ichthyosis.* By JOHN W. FRANCIS, M. D. Professor of Obstetrics and Forensic Medicine in Rutgers Medical College, New York, &c. [With a Plate.]

UNDER the denomination of *leprosy* the ancient writers comprehended almost every variety of cutaneous affections; and although some of the Greek physicians limited the term *lepra* to those disorders alone in which a scaly formation appeared, nosological discrimination was thereby little or not at all advanced. The leprosy of the Arabians would seem according to good authority to have embraced the elephantiasis of the Greeks; while, on the other hand, this disease has been transferred by various commentators on the writings of the Arabians, to the well known affection of certain hot climates, called the tumid or Barbadoes leg. Moreover, we have leprosies, white and black, and these again confounded with the enlarged leg, and fish-skin diseases; so that original authors and commentators have grouped together under one head the most distinct maladies, and contemplated as non-congeners, mere modifications of affections virtually one and the same. This want of accuracy in observation, and of precision in language, will be the more evident if we compare the descriptions of the physicians of the middle ages: the most opposite in their nature of the cutaneous disorders were by them confederated as leprosy: a disease of the exterior surface of the body, whether originating from local or constitutional causes; whether sporadic or endemic; whether it invaded the whole frame, or was limited to the smallest member thereof; whether it assumed a scaly or a pustular formation; of a snow, livid, copper, or other colour; of a contagious or non-contagious nature; if it proved obstinate to the usual means of relief was

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often readily and unwittingly termed leprous; and thus arose the innumerable and complex variety of complaints for which the sufferers were tortured with unavailing remedies, and often doomed to seclusion from society. The accounts of sacred writers on these peculiar topics are exemplified and illustrated by many of the authors of subsequent, and comparatively of modern times.

MAUNDRELL, who had seen lepers in Palestine, gives us various particulars of the disease among them: their feet were enlarged like those of the elephant, or like horses feet swelled with the farey. When I was in the Holy Land, says he, I saw several that laboured under Gehazis distemper, particularly at Sichem, (now Naplosu,) there were no less than ten came begging to us at one time. "Their touch was held infectious; the distemper was quite different, adds he, from what I saw it in England. It not only defiles the whole surface of the body with a foul scurf, but also deforms the joints of the body, particularly those of the wrists and ankles, making them swell with a gouty scrofulous substance, very loathsome to look on."^{*} PROSPER ALPINUS tells us it attacks peculiarly the feet. Some again assure us the disorder was marked by three peculiar signs; a bright spot, a rising of the surface, and a scale. The Salernian school not a little added to the obscurity on the subject: the same term was appropriated to different disorders, and elephantiasis sometimes designated a morbid state which had not been noticed even by the Greeks.

Even the poetry of LUCRETIUS,[†] and the speculations of MEAD,[‡] may be read as confirmatory of many of these views.

Nor is this confounding together every species of cachectic disease, accompanied with a derangement of cutaneous surface, limited to the writers of the dark and middle ages. A similar obscurity and confusion pervade many of the descriptions of our latest and best authors. Notwithstanding the wide distinctions and pathological principles which ought ever to be kept in the foremost point of view as replete with sound practical precepts, the accounts of the different and multiplied species of derangement consequent upon primary and secondary syphilis; the depredations of its antidote, mercury, induced by the preposterous use of several of its pharmaceutical forms; the sivvins of Scotland and of Canada, the ichthyosis and the northern or Scandinavian leprosy, are each subjects upon which the ingenuous inquirer demands further investigation, and more precise reports, if he expects to arrive at a correct nomenclature.

* Maundrell, Letter to Mr. Osborn, Clark's Bible, also Calmet.

† De Rerum Natura.

‡ Medicina Sacra.

When the imperfect state of the physical sciences in the early ages, and various other circumstances are considered, we are not entitled to wonder at the diversity of appellation that occurs in the history of similar and kindred diseases; and the confusion in which the specific distinctions of numerous disorders are involved. But this indulgence can scarcely be conceded to the eminent writers of our own day, who, while they have enriched medical philosophy with important facts, have nevertheless offered such discrepant and unsatisfactory information on these diseases, that not only the inherent difficulties of the inquiry remain unremoved, but much of the light we formerly enjoyed has become obscured. The systematic arrangements of WILLAN and BATEMAN are sufficiently well known, and while the exposition of the former on the subject of leprous diseases might be deemed among the most imperfect portions of his work, and be pronounced not only unsatisfactory, but as adding to our embarrassments; the ingenious and laboured researches of the latter have not relieved us so entirely as could have been desired.

The various ambiguous points relative to disorders of the skin seem little likely of being cleared up by the recent nosological classification of Professor SPRENGEL. According to this writer, the Greek leprosy and the Arabian or tubercular disease are only different species of the same genus: this latter is represented to occur under three different forms; the second of which is the Grecian or scaly, and under the last of these three, the tubercular, he enumerates five varieties, of which one is the Norwegian or northern leprosy.*

If the preceding remarks upon the conflicting views of different authors on leprous diseases so called, should be considered as in any degree harsh or censorious, a minute and elaborate study of the subject will satisfy the unprejudiced of their truth and application: and while it happens to comparatively but few medical prescribers to become practically conversant with these singular and loathsome complaints, yet a very limited experience will enable the close observer to arrive at conclusions equally at variance with the laboured classifications of some modern authorities, as with the unsuccessful efforts of their early predecessors.

The learned and classical investigations of Dr. GOOD† have led him to dispose of squamous affections under the genus *Lepidosis*, and to divide them into four species, the last of which is called by him the *L. ichthyasis*. Though the terminal *iasis* is by general consent applied to all the species appertaining to this genus of diseases, yet the

* The Radzyge of Holst and others.

† Study of Medicine.

word *ichthyosis* is preferred on this occasion as that which is most commonly used.

The characteristic of this genus, applies to those diseases which consist in an exfoliation of the cuticle in scales or crusts, and in some instances of almost a horny texture of the integuments: their outline is not regularly defined. Dr. Good considers them as owing to a morbid state or secretion of the rete mucosum or adipose layer of the part immediately beneath, which is sometimes too dry or deficient in quantity; sometimes, perhaps, absent altogether; sometimes, he adds, charged with a material that changes its natural colour; and sometimes loaded with an enormous abundance of a glutinous fluid; occasionally combined with calcareous earth. These lines of distinction are important to be kept in recollection in considering the pathological character of the elephantiasis of the Greeks; and for clinical purposes must not be overlooked.

In the *ichthyosis*, or fish-skin disease, the cutaneous excretaries seem to throw forth such an excess of earthy material, that it sometimes encases the body, according to the language of Dr. Good, like a shell; and the cutis, rete mucosum, and the cuticle being equally impregnated with it, the order of the tegumental laminæ is destroyed, and the whole forms a common mass of bony or horny corium, generally scaly or imbricate, according as the calcareous earth is deposited with a larger or smaller portion of gluten, in many instances of enormous thickness; sometimes giving rise to sprouts or branches of a very grotesque appearance; thus offering numerous varieties.

The instances of the simple fish-skin disease are not so extremely rare; they may be seen in different climates, in individuals of different habits of body, and at different seasons; but cases such as those recorded by MACHIN, BAKER, ASH, MARTIN, HOME, and others,* may be cited as affording most singularly interesting pathological facts. It appears somewhat remarkable that Dr. BATEMAN, in noticing the characteristics of ichthyosis, should state that the disorder has only some tendency to scaliness, but without desquamation or the deciduous exfoliation. The Lepidosis ichthyosis is designated by Dr. YOUNG, as being marked with scales, harsh, dry, and almost horny.† But the peculiarities of the fish-skin disease, according to different authors, are almost innumerable. AVICENNA tells us the desquamation is accompanied with much itching; DOVER, a slender authority, but one who had some practical opportunities, states it is bounded by a red

* Philosoph. Trans. of London; WILLAN, Alibert, Bateman, Medico-chirurg. Society of London. Lawrence, Lectures.

† Medical Literature.

margin; and in the Transactions of the Leipsic Society, it is mentioned, that the patient is not only invested with scales, in the manner of fish, but that he emits the exhalations of that animal. *Æger non solum squamis piscium instar tectus erat, sed etiam piscium odorem spargebat.**

The writer of these remarks has had various opportunities of witnessing several forms of those cutaneous disorders, which have been arranged under the denomination of *fish-skin* diseases. Like the tumid affections of the lower extremity they may be deemed of different kinds, and as deriving their origin frequently from different and even opposite causes. Hence the necessity of greater precision in the language employed in the description of them; and the inutility, if not impracticability, of grouping them together without full regard to specific differences. No one duly cautious would think of associating the case of puerperal sparganosis recorded by Mr. CHEVALLIER, in the Transactions of the Medical and Chirurgical Society of London,† with the swelled leg described by Dr. HENDY, though both may be pronounced enlargements of the inferior extremity. Clinical discrimination will consider the former as one of the morbid terminations of phlegmasia dolens; and the latter as a complaint mostly endemic to certain of the West India Islands, so much so as to have obtained its appellation therefrom; and as possessing peculiarities at variance with the characteristics of the ancient or true elephantiasis. Moreover it becomes indispensable to an accurate knowledge of those disorders, that attention be paid to the divers sources of derangement of organic action, and consequent morbid structure. Details ought to be confined to concurring causes and essential symptoms, and the fact must not be overlooked, that many of the most popular writers have incautiously adopted in their accounts the too fanciful and poetical description of ARETEUS, and in lieu of personal observation contented themselves with being copyers of the copyists of that eloquent author; or, like MEAD, VOGEL, FALCONER, LARREY, have incautiously confounded diseases of obviously different characters and natures.

It is not a little singular that one of the most happy descriptions of the leprosy, that has recently appeared, is that by a gentleman unconnected with the medical profession, a Mr. HUGGINS, an indigo-planter in the district of Tirhoot. His account relates to that species of the complaint which is prevalent in India. The reader will be struck with the circumstances which marked the disorder,

* Sauvages, Nosolog. Method.

† Volume II.

as given by Mr. H. and those published by Dr. ADAMS in his *Morbid Poisons*.

It will readily be conceded that Dr. Good has materially lessened the obscurity in which the different species of ichthyosis have so long been involved; and by the attention which he has bestowed in the investigation of these rare disorders, augmented his claims to the gratitude of the medical philosopher. In the brief histories of the several cases of ichthyosis now given, little more is attempted than a faithful notice of the peculiarities in the causes and appearances of the disease in the different subjects of it. It is presumed they contain facts of sufficient value for future consideration.

CASE I.—S. J. the subject of this case, aged 54, was born in the city of New York. Both his parents were natives of this country. He had suffered full six years of the complaint at the time he consulted the writer, in January, 1824. Shortly before the first invasion of the disorder, he received a slight abrasion on the lower and anterior part of the right leg: this was followed by some pain, redness, and the discharge of a thin humour somewhat acrid, which within a reasonable period ceased, and the whole promised well. But after a while, he again felt local inconvenience; a thin humour reappeared, and a dry scurf was induced in several parts of the limb. On the other leg a like appearance was manifest soon after this time, and this was marked by the formation of small crusts which used to fall off and leave the surface inflamed. The parts about the ankles, in both legs, often swelled considerably; fresh incrustations formed, and the disorder extended itself to about half way up each leg, on the *outside*. The whole desquamation, finally, put on a happy illustration of the fish-skin eruption. It may have been about two years before the disorder was thus entirely formed.

At the early period of the coming on of the complaint, the patient, at irregular intervals, was affected with rigors; these were sometimes succeeded by general febrile disturbance and considerable cerebral determination. After the continuance of the affection for two or three years, these constitutional symptoms lessened in activity, and his health became improved.

The patient was of a sanguine temperament, not particularly plethoric, though for a large portion of his life he suffered occasional attacks of epilepsy, which sometimes spontaneously left him, without much prostration of his strength, mental or physical; and at other times required copious depleting means for relief. His digestive organs through life preserved their wonted tone, but were frequently called into laborious duty by his generous habits of living. His situa-

tion in life and professional pursuits, enabled him to enjoy exercise in the open air, nor was he ever subjected to severity of application or close confinement. Neither on the part of his parents, nor of his brothers or sisters, did any appearance of a similar affection ever exhibit itself. One of his younger brothers suffered from attacks of catalepsy. His own children have no hereditary taint.

What were the causes of the eruptive diseases of S. J.? Minute inquiry has led to the following facts: in early age the patient entered largely into the indiscretions of youth, and did not escape the consequent penalties. His constitution was repeatedly subjected to severe mercurial treatment, which there is every reason to believe effected its wonted remedial changes. His system thus acted upon, may thereby have become predisposed to eruptive complaints; yet there was no assignable peculiarity either in his diet, regimen, or other circumstance, that could be deemed efficient in the causation of ichthyosis.

As to the treatment, he occasionally used aperients, calomel and jalap, the Epsom salts and magnesia, and the warm bath: locally he washed for a long period with Goulard's extract in solution, and applied the flannel roller. In January, 1824, he commenced with the Plummer's pills; for a considerable time used a weak solution of the corrosive sublimate; this was at intervals laid aside for the unguentum citrinum mixed with simple cerate, or the white precipitate ointment. The disease evidently was mitigated for a while by these means, but again returned with its accustomed energy. He now employed the warm bath more freely than formerly; the alterative pills of Plummer, or of corrosive sublimate were continued, and the white precipitate ointment with hellebore, and the bandage. He improved somewhat, but fearful of the vicarious consequences that often take place from the suppression of long-continued irritation and discharges, and aware of his tendency to epileptic attacks, he desisted from further medical prescriptions, and was satisfied to endure the inconveniences he had so long sustained.

CASE II.—So long ago as the year 1810-11, the case now to be noticed, fell under the observation of the writer, while a pupil of Dr. HOSACK. The subject of the disease was the late learned and eminent Dr. DANCER, of Jamaica, W. I. The character of his complaint was that form of ichthyosis which Dr. WILLIAMS has delineated under the name of *Ichthyosis cruris*, and his sixteenth plate most accurately exhibits the affection as it afflicted Dr. D. then about the sixtieth year of his age.

In this instance, the ichthyosis may justly be considered as among the evidences of that general vitiation of the body under which the patient had laboured many years. For a long time before the appearance of this cutaneous disorganization, he had endured the horrors of a disordered imagination, depressed mind, and disturbed digestion; great restlessness, irritability of stomach, pyrosis, flatulence, inordinate eructations of wind, and an irregular action of the functions of the bowels: the evacuations of the intestinal canal were scanty and depraved; sometimes surcharged with dark biliary secretions, at other times of a clay colour. The urine often very sparing, and loaded with adventitious matter, depositing a yellowish or branny sediment. Added to these distresses, he for more than four years was oppressed by a general and pervading dropsy. His dyspncea was truly afflicting; pulse often scarcely perceptible, small, wiry, or intermittent. According to his own account of his symptoms, (a diary of which he carefully preserved,) more than twelve months had elapsed since he was able to lie down, or assume a horizontal posture. His skin, over the surface of his whole body, was of a dark, biliary aspect, but the cachectic state of his inferior extremities, now the more especial subject of consideration, extended from a short distance below the knees to near the division of the toes. His consequent incapacity of locomotion was great, and this condition of things was still worse at those periods when the cutaneous lamina cracked and poured out an acrimonious watery discharge.

It may be pardonable to enlarge a little more on this interesting case. Though there exists no need of accumulating facts to confirm the pathological truth, that general serous effusions or diabetes often prove the sequelæ of a vitiated habit: yet in the present instance, the universal dropsy of the sufferer, could be attributed to no other operative cause. Dr. D. entertained, for the most part, accurate views of the nature of his situation, but could not be prevailed on to believe, that of the number of his calamities he had water in the peritoneal cavity, until, by tapping, the necessity of which was urged upon him by his physician, Dr. H., nearly three gallons of water were thus drawn off. "I am fully aware of my disorder in all its hydra forms," he would say to his medical prescriber: "I have disorganization of the digestive apparatus, but no water in the belly;—my scrotum is as big as a watermelon;—and, doctor, my legs, they are the legs of the rhinoceros."

There can be no doubt of the agents which predisposed and led to the establishment of this disease. The patient's long residence in a

hot climate, his excessive indulgence for many years in epicurean habits, and his total disregard of the monitions of his illustrious predecessor, BOERHAAVE, for the preservation of health,

Venus et Bacchus rarius colantur,

present circumstances which supersede any further investigation as to the origin of his hydropic and cachectic state. Great as were his bodily sufferings, anxious as he was for his recovery, yet momentarily apprehensive of dissolution, his well cultivated mind supported him in his severe trial, and occasionally exhibited proofs of its sustained force and acuteness. To an impudent intruder, who at this ill-seasoned hour entered his room, when death had all but fulfilled his sad office, soliciting his subscription to a work on the immortality of the soul, with much effort raising his head, with great feeling and self-possession he answered, "friend, I am just making an experiment on that subject myself, and am in no need of human opinions about it."

CASE III.—From the patient himself the following circumstances of his case have been derived. They can be fully depended upon, and furnish an instructive history of *hereditary ichthyosis*.

M. J. aged twenty-four years, is a native of Massachusetts: his ancestors, for several generations, were also natives of the same state. He has been afflicted with the disease from his infancy; the parts most affected are the following:—

The head is constantly surcharged with a large quantity of what the patient commonly calls dandriff, which freely comes off upon combing the hair. The face is entirely free and natural.

Of the superior extremities: on the anterior part of the neck, and partially on the shoulders, the scurf is considerable. From the shoulders to the wrists the arms and fore-arms are imbricated with this tegumen, which is larger and most compact on the arms. His whole trunk both anteriorly and posteriorly, are also invested with the disorder. On the lateral parts near the axilla it is scarcely visible. The lower portion of the abdomen is also covered with the like scales, which are lighter at the pubic region: the mammae also participate in the disorganization, and are unduly tender.

Of the inferior extremities: the inside of the thighs are exempt, while the hips and the anterior and outer parts of the thighs are closely covered with these calcareous scales: there is but a very slight development of this morbid structure near and at the popliteal portion of the leg, but all below the knees on the anterior parts of the legs

are closer invested than any other section of the body and with larger scales. At the feet, this scaliness seems to be gradually lost, so as to have little affected the insteps; and upon the ankles of both legs on each side, the integument is clear.

It is further to be remarked that the soles of the feet are softer than the palms of the hands, and that both are free of the infirmity: that the joints and those parts of the body where the perspirable secretion is greatest, are most free and natural; and that during the warmest period of the summer season, the disease so far disappears as to be scarcely at all perceptible: at the time of the transitions of the seasons from colder to warmer, the scales fall off in large quantities, especially at night; while at the coldest time of the winter the disorder is most extensive and formidable. Moist weather rather lessens the evil, while dry aggravates it.

There is nothing peculiar in the habits of the patient that can aid in accounting for the disease; he is temperate, not affected with unusual thirst, moderate in the use of animal food, and in nowise fond of salted provisions. He has never been subjected to the malignant effects of mercury, nor suffered any glandular derangement: he bears without disadvantage the greatest fatigue; his virile organs possess more than the wonted energy of those functionaries, and his mind, though occasionally dejected, is remarkable for its activity and vigilance.

The present instance gives additional confirmation of the hereditary nature of this disease, though no case of this kind seems to have fallen under the cognizance of Dr. Willan. Nor, says the same distinguished author, in treating of this complaint was more than one child from the same parents affected with it. In several instances, adds he, the disease was said to have been connate, and in others to have occurred two or three months after birth: in one case it appeared soon after the small-pox, at the age of ten years, and has continued five or six years without alteration.*

On this point the ensuing facts are curious and instructive. His grandfather suffered from a like affection. His father was totally free from it. His grandmother and mother enjoyed the like immunity. Of five brothers, two suffer from it; the patient himself, the last but one of seven children, and his eldest brother, the second child. Of the two sisters, both are exempt from the slightest marks of the disorder; the eldest sister, aged about thirty-six years, has eight children, one of whom, a boy, has the complaint. The younger sister, who is

* Willan, 4to. page 199.

the youngest child, has two children, one of whom, a girl seven years old, is affected in like manner.

He has done little for his relief, cherishing no hopes of permanent benefit. Aperients, as the saline cathartics, and occasional doses of calomel and jalap, have been at various times prescribed by different physicians: the warm bath has always proved advantageous for a while. He has taken sulphur internally. He was once under the constitutional action of mercury, for an acute fever, but it wrought no change in the character of the ichthyosis. A solution of the corrosive sublimate, used as a lotion, gave temporary advantage. He has been recommended the use of iodine.

This cutaneous desquamation, has, in all these instances, appeared very early in life, between the first, second, and third year. It is proper to observe, that the appearance of this form of ichthyosis is like that happily depicted, under the name of *Ichthyosis simplex*, in the xviiiith plate of Dr Willan. The squamae, however, are in general larger and more crowded together. The sufferer has at no time been harassed with pustular eruptions; he has often complained of a universal dryness of the skin, and much itching. All his teeth became carious at an early age.

CASE IV.—There is the less necessity for a minute description of the peculiarities in the appearance of this case, as the accompanying engraving presents to the observer a better idea of it than any language can impart. The drawings were made with the greatest fidelity by Dr. ALEXANDER CLINTON.

The history of the disorder is briefly as follows:—The patient was born in New England, and both his parents, who were Americans, had always been free from every vitiation of the skin or glandular disease. He was first seen by the writer about October, 1820. He was at that time, twenty-nine years of age: the cutaneous disorganization had been on him about sixteen months, but had somewhat varied at different periods in its character and extent. Previous to the first invasion of the complaint he had enjoyed good health, excepting occasional attacks of pulmonary irritation: about a year before the evidences of his impetigenous disorder came on, he was subjected to financial difficulties, and gave himself up to an indulgence in spirituous drinks, by which his strength was much broken, and a slight anasarca condition of his lower limbs succeeded. These were the prominent occurrences which seem to indicate his malady to have been of constitutional origin. When the cutaneous disorder made its approach, he complained of occasional irregular pains of the back and limbs, headache, loss of appetite, and great depression of spirits. The bowels

were irregular, and often torpid. As the autumn and winter advanced the form of his disease became more severe; he encountered greater constitutional disturbance, and febrile irritation. He was sometimes deprived of all power of pursuing his customary vocation, which required much exercise on foot, and he was rendered peculiarly susceptible of the variations in the temperature of the weather.

From some indications it now became more apparent that his general habit was vitiated. In different parts of his body slight discolorations of a scorbutic nature made their appearance. The exhalations of the skin were extremely offensive; his breath fetid; the dejections of the alimentary canal at times dysenteric; and his strength lessened. These circumstances, however, were in a degree removed by the use which the patient of his own accord made of aperients, sublimed sulphur, warm bathing, and a diet mostly vegetable. Yet after a while he relapsed, and now supervened the ichthyosis delineated in the annexed drawings.

On its first appearance it occupied the middle and anterior portion of the leg, and much resembled the light scarlet-coloured spots marked *a*. These were followed by larger ones of a darker red colour, and after coalescence they here and there seemed to be constituted of groups of small verucæ, invested with different hues, some of a dark brown, and others of a greenish brown crust. The elevations were very irregular in height and shape, void of a laminated structure, and taking on the cauliflower appearance: slight cracks or fissures occasionally intervened, and a discharge somewhat purulent might be observed. Surrounding the lower part of the leg and the instep, the fish-skin desquamation was most conspicuous and enduring. There was no affection of the groins.

See Plate IV. figures 1 and 2 of the right leg. Figure 3 accurately shows the condition of the left leg. On both legs, at different times, deep excavations occurred by the ulceration which surrounded the base of some of these fungiform tubers, see fig. 3. *b*. Very slight injuries or abrasions would cause many of these elevations to drop off, sometimes they were snipped off with the scissors, little or no discharge following. Upon rising out of bed in the morning, a considerable portion of the fish-skin covering might be seen to have desquamated.

The present case furnishes facts directly in opposition to the assertion of Dr. Willan, that this disorder is never seen on the inner side of the leg.

The duration of this disease continued about five months after he had applied to the writer for relief. The patient being apprehensive

of the fatal tendency of his complaint, too often surrendered himself to grief and its temporary alleviations, but by the earnest persuasion of friendship he was brought to yield to the severe discipline of appropriate dietetics and the *materia medica*.

In addition, he carefully guarded himself against exposure to the inclemencies of the weather, and other causes which materially aggravate the nature of cutaneous diseases. The medical treatment may be summed up in a few words. It is grateful to state that its issue was entirely successful; a fact of the greater value when the inveterate nature of this disease is considered. Since dismissed, there has been no recurrence of any of his symptoms, and for a period of seven years the patient has remained wholly free from the slightest affection of the skin.

After the free administration of active cathartics, such as calomel and the pulvis purgens; Epsom salts and magnesia; the infusion of senna and tremor tartar; the bowels was kept open by the occasional use of the rhubarb and magnesia mixture. He was enjoined the warm bath at the temperature of 96°, every other day. This was sometimes slightly medicated with the nitric acid. He also applied at intervals to the diseased surface the nitric acid in weak solution; this was found serviceable for a time, inducing very little pain or uneasiness, and acting as a salutary irritant on the tubercular excrescences.

The arid condition of his skin remained unaltered. Plummer's pills were ordered, one, morning and evening; these he took for many weeks, but sometimes substituting the pill hydrargyri or the corrosive sublimate in their stead. An ointment of the white precipitate of mercury with an equal portion of that of pitch, applied, *ter in die*, was attended with every desirable advantage. The excrescences ceased of their growth, and gradually diminished. Those parts where cicatrization was needed, were perceived to be undergoing that process.

A few drops daily of the arsenical solution was now given internally, and the affected parts touched with the same. After a short period he was recommended to take pulverized charcoal, united with about one-fourth its bulk of powdered myrrh. This prescription the writer had found very serviceable in that impaired state of the habit which is sometimes brought on by the united powers of syphilis and mercury, and it did not in this present case disappoint the high expectations anticipated. During the whole course of the treatment the greatest regard to cleanliness of the parts was enjoined, and the diet of the sufferer was mainly of the vegetable kind; latterly he